UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11-17-89

SUBJECT: Compliance Inspection Review Sheet

FROM: Anati Velasco

TO: ~~Michael J. Mikulka~~ Lee F. Accetta
Enforcement Unit III

Permittee Name: Pennwalt Corp. Date of Survey: 6-29-89

Location: Wyandotte, MI Date Report Received in Compliance Section 11-8-89

NPDES No: MI0002381 Date Report Received by Reviewer 11-14-89

Inspection Type

MAJOR	MUNICIPAL	EVALUATION	(PERFORMANCE AUDIT INSP.)
MINOR	(INDUSTRIAL)	SAMPLING	PRETREATMENT COMPL. INSP.
	~~FEDERAL~~	RECONNAISSANCE	PRETREATMENT AUDIT
		BIO-MONITORING	

ANALYSIS OF FINDINGS:

[X] 1. Permittee is in full compliance with NPDES permit.

[ ] 2. Noncompliance with NPDES compliance schedule, as follows:

[ ] 3. Noncompliance with NPDES effluent limitations, as follows:

[ ] 4. Noncompliance with other NPDES requirements, as follows:

[X] 5. Other significant findings: Check of lab and analysis performed found no deficiencies.

[ ] 1. A permit modification has been requested; enforcement is not presently appropriate.

[ ] 2. Action has already been taken by EPA/the State on the violation(s) (please describe).

[ ] 3. Violations are not significant (please sescribe, addressing technical review criteria, as appropriate).

RECOMMENDED ACTION

[X] 1. No action necessary; discharger is in compliance.

[ ] 2. No Action necessary; insignificant violations or mitigating circumstances, as described above.

[ ] 3. Defer to State; place on "audit/watch list."

[ ] 4. Federal action appears to be warranted. Type of action _____.

[ ] 5. Warning letter (to be) sent to permittee _____. (date)

FINAL DISPOSITION

[/] 1. Concurrence with reviewer's recommendation.

[ ] 2. Case assigned to _____ for further investigation and/or initiation of a Federal enforcement action.

Leon F. Acuff ~~Michael J. Mikulka~~, Chief
Enforcement Unit II

11/15/89
Date

cc: ~~Steve Gorenson, 5SEM-536~~
Willie Harris, 5SCDO-536.

STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES

WATER RESOURCES COMMISSION

IN THE MATTER OF APPLICATION OF
Wyandotte, Wayne County, Michigan

NPDES PERMIT NO. MI 0002381
FINAL ORDER NO. 1994

IN THE MATTER OF [illegible]

At a session of the Water Resources Commission on February 19, 1981
held at Lansing, Michigan, upon presentation by staff of the Water Quality Division, and based upon the official files of the Water Resources Commission:

IT IS THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that Pennwalt Corporation was issued National Pollutant Discharge Elimination System (NPDES) Permit No. MI 0002381 on June 20, 1975, for its Wyandotte Facility in Wyandotte, Michigan. Said Permit was revised March 3, 1976, and again May 21, 1976.

IT IS [illegible] THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, the Federal Clean Water Act of 1977 (P.L. 95-217), which amended the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), and the Michigan Water Resources Commission Act (Act 245, P.A. 1929 as amended), require that by no later than July 1, 1977, all dischargers to the surface waters of the State of Michigan have waste treatment facilities installed and operating, which conform with Best Practicable Control Technology Currently Available (B.P.C.T.C.A.) as defined by the United States Environmental Protection Agency (U.S. EPA) and any more stringent limitations necessary to meet the water quality standards of the State of Michigan.

IT IS [illegible] THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that NPDES Permit No. MI 0002381 contained final effluent limitations and a schedule of compliance to achieve those limitations by July 1, 1977.

IT IS [illegible] THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that although Pennwalt Corporation complied with portions of the schedule of compliance, the company violated the terms and conditions of NPDES Permit No. MI 0002381 by its continued inability to achieve effluent limitations specified within the permit.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and Michigan Department of Natural Resources, that as a result of these continuing violations, a Final Order of Abatement, Final Order No. 1931 was entered in October 1977. Under provisions of the Final Order, Pennwalt Corporation immediately paid as liquidated damages the sum of one hundred fifty thousand dollars ($150,000.00) to the general fund of the State of Michigan. Additionally, the Final Order modified the schedule of compliance contained in NPDES Permit No. MI 0002381, allowing an extension of time for achieving compliance to October 1, 1977, for Outfall 002, to April 1, 1978, for Outfalls 003 and 005, and to February 1, 1978, for Outfall 006.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that Pennwalt Corporation failed to attain the operational level necessary to meet the effluent limitations specified in Final Order No. 1931 in accordance with the schedule outlined therein.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that under provisions of Final Order 1931, specific to violations of final effluent limitations after required compliance dates, Pennwalt Corporation contemporaneously made payments of liquidated damages totaling an additional one hundred eighty thousand dollars ($180,000.00). Subsequent violations of the final effluent limitations were violations of the Final Order for which the State could seek other and further relief.

IT IS THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that in accordance with Part 5 Rules of the General Rules of the Water Resources Commission that Pennwalt Corporation is required to submit and implement a Pollution Incident Prevention Plan.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that Pennwalt Corporation submitted a revised Pollution Incident Prevention Plan (PIPP) November 16, 1979 and that said plan included a proposed implementation schedule for construction of additional containment facilities for both the East and West Plants.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that the pH limitations contained in the United States Environmental Protection Agency (EPA) promulgated guidelines for the Inorganic Chemical industry subcategory, dated March 12, 1974 and May 22, 1975, are not applicable to the Pennwalt facilities.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that the Company continuously measures pH at all its process wastewater discharges.

IT IS [illegible] EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that the EPA document entitled [illegible] FOR MODIFICATION OF pH EFFLUENT [illegible] published [illegible] states "pH standards (6.0-9.0) whenever final effluent pH is required to be measured continuously may be beyond the capabilities of ECT and BCT systems."

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Department of Natural Resources, that, as evidenced by the Company's December 18, 1979, demonstration of their existing pH control facilities, the pH limitations contained in this Final Order are appropriate.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that compliance with the pH limitations contained in this Final Order will insure full protection of the State's water quality standards and will protect the State's waters against pollution, impairment, or destruction.

IT IS AGREED BY ALL PARTIES, the Department of Natural Resources, the Water Resources Commission, and Pennwalt Corporation, that in the absence of effective guidelines for pH, it is the judgment of the parties that the pH control facilities installed by the Company constitute Best Practicable Control Technology Currently Available (B.P.C...C.A.). The parties also recognize that the United States Environmental Protection Agency (EPA) has neither made a final determination on this issue nor authorized the inclusion of the pH limitations contained herein in a revised NPDES permit for Pennwalt, and that a final determination by EPA on this issue may require modification of this Final Order or the NDPES permit. In this event, either party may seek such modification.

IT IS FURTHER THE EXPRESS FINDING OF FACT of the Water Resources Commission and the Michigan Department of Natural Resources, that the Company has reviewed this Consent Order and while neither admitting nor denying that litigation of the issues would have resulted in a finding of the violations referred to in this Order or award of the damages set forth in this Order, has agreed to its entry as the Final Order of the Water Resources Commission.

IT IS FURTHER ORDERED that Final Order of Abatement No. 1931 entered on October 14, 1977 is hereby rescinded.

IT IS FURTHER ORDERED that NPDES Permit No. MI 0002381 issued on June 20, 1975, as subsequently revised, is in full force and effect except that compliance with Section A of this Final Order constitutes compliance with Part I, Section A of the NPDES permit until NPDES Permit No. MI 0002381 is reissued, suspended, rescinded or revoked.

SECTION A EFFLUENT CONDITIONS AND MONITORING REQUIREMENTS

IT IS FURTHER ORDERED that Pennwalt Corporation shall comply with the following restrictions and conditions:

1. Final Effluent Limitations

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge up to a maximum of eight million one hundred thousand (8,100,000) gallons per day of noncontact cooling water from Outfall 001. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations kg/day (lbs/day) Monthly Average	Daily Maximum	Other Limitations Monthly Average	Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Flow, M³/Day (MGD)					3x Weekly	
Total Suspended Solids					Weekly	Grab
Total Residual Chlorine					Weekly	Grab
Ammonia (as N)					Weekly	Grab
Chlorides					Weekly	Grab
Oil & Grease			No Visible Film		Daily	Visual Observation
Temperature					Weekly	Recording
COD					Weekly	Grab

The term noncontact cooling water shall mean water used for cooling which does not come into direct contact with any raw material, intermediate product, by product, waste product, or finished product.

a. The pH shall not be less than 6.0 nor greater than 9.0. The pH shall be monitored as follows: weekly; grab.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. Samples taken in compliance with the monitoring requirements above shall be taken at Outfall 001 prior to discharge to Wye Street storm sewer.

e. In the event the permittee shall require the use of Water Treatment additives the permittee shall notify the Michigan Water Resources Commission in accordance with the requirements of Part II, Section A-1 of NPDES Permit No. MI 0002381.

2. Final Effluent Limitations

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge up to a maximum of seventeen million nine hundred thousand (17,900,000) gallons per day of contact cooling water, process water, and noncontact cooling water from Outfall 002. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations kg/day (lbs/day) Monthly Average	Daily Maximum	Other Limitations Monthly Average	Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Flow, M^3/Day (MGD)					3x Weekly	
Chlorides					3x Weekly	24 Hr. Comp.
Oil & Grease			No Visible Film		Daily	Visual Observation
Temperature					Daily	Reading
COD					3x Weekly	24 Hr. Comp.
Total Suspended Solids	4193(9246)	8206(18092)			5x Weekly	Grab
Ammonia (as N)			1.4 mg/l	2.3 mg/l	3x Weekly	24 Hr. Comp.
Total Residual Chlorine			1.0 mg/l	1.5 mg/l	Daily	Grab
Total Lead	0.6(1.37)	1.75(2.75			Twice Monthly	24 Hr. Comp.

The term noncontact cooling water shall mean water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product, or finished product.

a. The pH shall be within the range of 6.0 to 9.5, 90% of the time; within the range of 5.0 to 10.0, 95% of the time; within the range of 3.0 to 11.0, 99% of the time; within the range of 2.0 to 12.0, 100% of the time during a 24 hour period beginning on or about 7:00 a.m. of each day. The pH shall be monitored as follows: continuous; report the maximum and minimum and percent of time within each range during the above 24 hour period.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. Samples taken in compliance with the monitoring requirements above shall be taken at Outfall 002 prior to discharge to the Detroit River.

e. In the event the permittee shall require the use of Water Treatment additives, the permittee shall notify the Michigan Water Resources Commission in accordance with the requirements of Part II, Section A-1 of NPDES Permit No. MI 0002381.

3. Final Effluent Limitations

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge up to a maximum of nine million eight hundred thousand (9,800,000) gallons per day of contact cooling water, process water, including waste water from the cell room, and noncontact cooling water from Outfall 003. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations kg/day (lbs/day) Monthly Average	Daily Maximum	Other Limitations Monthly Average	Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Flow, M^3/Day (MGD)					3x Weekly	
Chlorides					3x Weekly	24 Hr. Comp.
Oil & Grease			No Visible Film		Daily	Visual Observation
Temperature					Daily	Reading
Total Suspended Solids	1481(3266)	2963(6532)			5x Weekly	Grab
Ammonia (as N)			3 mg/l	5 mg/l	3x Weekly	24 Hr. Comp.
Total Copper				1.0 mg/l	Twice Monthly	24 Hr. Comp.
Total Lead	0.45(1.0)	0.9(2.0)			Twice Monthly	24 Hr. Comp.
Total Residual Chlorine			1.0 mg/l	1.5 mg/l	Daily	Grab

The term noncontact cooling water means water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product, or finished product.

a. The pH shall be within the range of 6.0 to 9.5, 90% of the time; within the range of 6.0 to 11.0, 99% of the time; and within the range of 2.0 to 11.0, 100% of the time during a 24 hour period beginning on or about 7:00 a.m. of each day. The pH shall be monitored as follows: continuous; report the maximum and minimum and percent of time within each range during the above 24 hour period.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. Samples taken in compliance with the monitoring requirements above shall be taken at Outfall 003 prior to discharge to the Detroit River.

e. In the event the permittee shall require the use of Water Treatment additives, the permittee shall notify the Michigan Water Resources Commission in accordance with the requirements of Part II, Section A-1 of NPDES Permit No. MI 0002381.

4. Final Effluent Limitations

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge up to a maximum of two million three hundred thousand (2,300,000) gallons per day** of process water, including ferric chloride process water from Outfall 005. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	Discharge Limitations kg/day (lbs/day)** Monthly Average	Daily Maximum	Other Limitations Monthly Average	Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Flow, M^3/Day (MGD)					Continuous	
Total Suspended Solids*	212(467)	425(934)	35 mg/l	70 mg/l	5x Weekly	Grab
COD		821(1801)			3x Weekly	24 Hr. Comp.
Ammonia (as N)			1.0 mg/l	1.5 mg/l	3x Weekly	24 Hr. Comp.
Total Residual Chlorine			1.0 mg/l	1.5 mg/l	Daily	Grab
Chlorides					3x Weekly	24 Hr. Comp.
Total Lead	0.6(1.4)	1.2(2.7)	0.1 mg/l	0.2 mg/l	Twice Monthly	24 Hr. Comp.
Oil & Grease			No Visible Film		Daily	Visual Observation
Temperature					Daily	Reading

* The above limitations for Total Suspended Solids may be modified to net value upon demonstration to the Chief of the Water Quality Division of the Michigan Department of Natural Resources that gross values are unattainable due to technical or economic considerations. Such modification shall be made in accordance with Part II, Section B-4 of NPDES Permit No. MI 0002381.

** kg/day (lbs/day) values are not related to flow volume.

a. The pH shall be within the range of 6.0 to 9.5, 90% of the time; within the range of 5.0 to 10.0, 95% of the time; within the range of 3.0 to 11.0, 100% of the time during a 24 hour period beginning on or about 7:00 a.m. of each day. The pH shall be monitored as follows: continuous - report the maximum and minimum and percent of time within each range during the above 24 hour period.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. Samples taken in compliance with the monitoring requirements above shall be taken at Outfall 005 prior to mixing with effluent from the Wyandotte-Wayne waste water treatment plant.

5. Final Effluent Limitations - Total Chloride Loading

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge contact cooling water, barometric condenser water, noncontact cooling water and process water from Outfalls 001, 002, 003, and 005. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations kg/day (lbs/day) Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Total Combined Outfalls 001, 002, 003 and 005:			
Chlorides*	227,000(500,000)	3x Weekly	Calcula

* The above limitations for chlorides may be modified to a net value upon demonstration to the Chief of the Water Quality Division that gross values are unattainable due to technical or economic considerations. Such modification shall be made in accordance with Part II, Section B-4 of NPDES Permit No. MI 0002381.

6. Final Effluent Limitations

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee is authorized to discharge up to a maximum of ten million (10,000,000) gallons per day* of noncontact cooling water, barometric condenser water and process water from Outfall 006. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations kg/day(lbs/day)* Monthly Average	Daily Maximum	Other Limitations Monthly Average	Daily Maximum	Monitoring Requirements Measurement Frequency	Sample Type
Flow, M^3/Day (MGD)					3x Weekly	
BOD_5	661(1457)	967(2133)			3x Weekly	24 Hr. Comp.
COD					3x Weekly	24 Hr. Comp.
Total Suspended Solids	173(380) (net)	259(570) (net)			3x Weekly	24 Hr. Comp.
Chlorides		4000(8800) (net)			3x Weekly	24 Hr. Comp.
Ammonia (unionized)				0.2 mg/l	3x Weekly	Grab
Total Residual Chlorine				0.5 mg/l	3x Weekly	Grab
Phenol		4.5(10)		0.2 mg/l	3x Weekly	24 Hr. Comp.
Sulfide					Weekly	24 Hr. Comp.
Temperature					3x Weekly	Reading
Oil & Grease			No Visible Film		Daily	Visual Observation
Total Zinc				1.0 mg/l	Twice Monthly	24 Hr. Comp.

* kg/day (lbs/day) values are not related to the flow volume.

a. The pH shall be within the range of 6.0 to 9.5, 90% of the time; within the range of 6.0 to 10.0, 100% of the time during a 24 hour period beginning on or about 7:00 a.m. of each day. The pH shall be monitored as follows: continuous - report the maximum and minimum and percent of time within each range during the above 24 hour period.

b. The discharge shall not cause excessive foam in the receiving waters. The discharge shall be essentially free of floating and settleable solids.

c. The discharge shall not contain oil or other substances in amounts sufficient to create a visible film or sheen on the receiving waters.

d. Samples taken in compliance with the monitoring requirements above shall be taken at Outfall 006 prior to discharge to Monguagon Creek.

7. Intake Monitoring Requirements

During the period beginning on the effective date of this Final Order and lasting until the expiration of authorization under this Final Order, the permittee shall monitor the intake as specified below:

Characteristic	Monitoring Requirements Measurement Frequency	Sample Type
BOD_5	Weekly	24 Hr. Comp.
Total Suspended Solids	5x Weekly	24 Hr. Comp.
Chlorides	3x Weekly	24 Hr. Comp.
COD	3x Weekly	24 Hr. Comp.

a. Samples taken in compliance with the monitoring requirements above shall be taken of the intake after initial screening.

8. Limitations, Monitoring and Reporting Requirements for Deep Disposal Well

Beginning upon the issuance of this Final Order and lasting until the expiration of authorization of this Final Order the permittee shall dispose of previously authorized wastewaters into an approved strata by means of disposal wells which shall be equipped, tested, and operated in conformance with the requirements of the Mineral Wells Act, Act 315, Public Acts of 1929 and Act 245, Public Acts of 1929, as amended, and the rules promulgated thereunder. The company shall submit to the Chief of the Water Quality Division and obtain his approval of its contingency plan for periods of outage of the deep well disposal system. Any outage of the deep well disposal system shall be immediately reported to the Chief of the Water Quality Division and the Geological Survey Division Supervisor of Waste Disposal Wells.

Monitoring Requirements for Deep Well Disposal

PARAMETER	LIMITS	FREQUENCY	TYPE
Wellhead Pressure	(None set)	Weekly	Psig
Flow Rate		Weekly	GPM (Pump Rate)
Flow Total		Monthly	MG/MON (Last day)
Total Suspended Solids		Weekly	#/1000 gal (Grab)

The disposal to the deep well is limited to currently authorized discharges. Any new discharges to the deep well shall be done in accordance with Part II-A-1 of NPDES Permit No. MI 0002381.

The above authorization pertains to the deep well disposal units as permitted by the Geological Survey Division of the Michigan Department of Natural Resources.

Mineral Well Permit No.	Well No.
049-736-882	4-049
048-736-882	6-048
047-736-882	15-047

Reporting Requirements for Deep Well Disposal

The permittee shall comply with the following reporting in accordance with the schedule under C of NPDES Permit No. MI 0002381, Schedule of Compliance - Deep Well Disposal.

a. Submit contingency plans for periods of outage.

b. Submit a completed Michigan Discharge Permit Application and a "Well and Reservoir Data on Underground Industrial Waste Disposal Systems" form (as approved by the Geological Survey Division of the Department of Natural Resources) for each disposal well to the Chief of the Water Quality Division Department of Natural Resources on or before N/A.

Review of the discharge(s) to the deep disposal well(s) will be made upon receipt of the application. Any modification in the disposal well requirements of the permit will be made in accordance with Part II-B-4 of NPDES Permit No. MI 0002381.

SECTION B POLLUTION INCIDENT PREVENTION PLAN

IT IS FURTHER ORDERED that Pennwalt Corporation implement the approved Pollution Incident Prevention Plan in accordance with the following schedule:

1. West Plant

a. Secondary Containment (Diked Tanks)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.
2.) Complete construction by November 1, 1981.

b. Spillage Containment (Tank Car and Tank Trailer Building No. 49 Unloading/Loading)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.
2.) Complete construction by August 1, 1981.

c. Spillage Drainage Prevention (Tank Car and Tank Trailer Loading/Unloading)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.

2.) Complete construction by October 1, 1981.

d. In-Process Containment Facilities (Sump and Valves)
1.) Submittal and approval of a final design, typical of the facilities to be constructed, by March 1, 1981.

2.) Complete construction by June 1, 1982.

e. Vacuum Trailer
1.) A vacuum trailer is on site and operational.

2. East Plant

a. Secondary Containment (Diked Tanks)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.

2.) Complete construction by August 1, 1981.

b. Secondary Spill Prevention (Dry Moats)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.

2.) Complete construction by November 1, 1981.

c. Alternate Containment Program (Undiked Tanks-Plugs)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.

2.) Complete construction by October 1, 1981.

d. Spillage Containment (Tank Trailer Unloading)
1.) The Company has submitted and received approval of final design, typical of the facilities to be constructed.

2.) Complete construction by September 1, 1981.

e. Spillage Drainage Prevention (Tank Car and Tank Trailer)
1.) The Company has submitted and received approval of a final design, typical of the facilities to be constructed.

2.) Complete construction by August 1, 1981.

f. Alternate Containment Program (In-Process)
1.) Submittal and approval of a final design, typical of the facilities to be constructed, by June 1, 1981.

2.) Complete construction by September 1, 1982.

g. Liquid Ferric Sludge (Defluidizing Pad)
1.) Submittal and approval of a final design, typical of the facilities to be constructed, by April 1, 1981.

2.) Complete construction by September 1, 1981.

No later than 14 calendar days following any of the dates for completion of construction identified in the above schedule of compliance, the Company shall submit a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken and the projected date for completion of construction.

IT IS FURTHER ORDERED that Pennwalt Corporation submit progress reports on or before July 1, 1981, January 1, 1982, July 1, 1982, and January 1, 1983 regarding the status of implementation of the Pollution Incident Prevention Plan.

SECTION C PROCESS WASTEWATER CHARACTERIZATION STUDY

Pennwalt Corporation shall conduct a Process Wastewater Characterization Study in accordance with Attachment "A" hereto in accordance with the following:

1. Submit an approvable schedule to implement the Wastewater Characterization Study, Attachment "A" to the Chief of the Water Quality Division on or before July 31, 1980. The Company has submitted a schedule which is under review.

2. Submit a listing of parameters by process, for which analytical procedures are currently not available, to the Chief of the Water Quality Division on or before July 31, 1980. The Company has submitted this listing.

3. Submit an approvable detailed analytical procedure for each parameter identified in 2. above to the Chief of the Water Quality Division by date of entry of this Final Order, except as provided in 4. below. The analytical procedures approved by the Chief of the Water Quality Division shall be utilized in the process wastewater characterization study. The Company has submitted a proposed analytical procedure for the lower alkylamines through di-n-butylamine which is under review.

4. Where analytical procedures cannot be developed for any parameter(s) the Company shall submit detailed documentation of attempts to develop such procedure(s) and a proposal for additional research to accomplish same, including an implementation schedule, to the Chief of the Water Quality Division on or before February 28, 1981. Any additional research to develop analytical procedures must receive the approval of the Chief of the Water Quality Division. Termination of attempts to develop analytical procedures must receive the approval of the Chief of the Water Quality Division.

5. Submit a progress report to the Chief of the Water Quality Division detailing the actions the Company has taken to comply with this section. Said report shall be submitted by no later than February 28, 1981.

6. Submit the results of the Process Wastewater Characterization Study to the Chief of the Water Quality Division on or before April 30, 1981.

SECTION D CONCLUSION

IT IS AGREED that the entry of this Final Order is in settlement for violations of NPDES Permit No. NI 0002381 and Final Order of Abatement F.O. 1931. The entry of this Final Order completes the Company's obligations under the Final Order No. 1931 and supercedes and rescinds Final Order No. 1931.

Pennwalt Corporation agrees that but for this Final Order, the Company might be subject to the civil penalty provisions provided by law for failure of the Company to be in full compliance with the terms and conditions of NPDES Permit No. MI 0002381 and Final Order of Abatement No. 1931. The Pennwalt Corporation and the Department hereby agree that the $150,000 liquidated damages paid on October 10, 1977, and the liquidated damage payments paid pursuant to Final Order No. 1931 totaling $[illegible],000 and including the $30,000 accompanying this settlement, the total of the above representing a payment of $360,000, constitute fair settlement for the above alleged violations and completely satisfy the Company's obligations under Final Order of Abatement No. 1931. This settlement is not a release or waiver of liability for environmental damage or resource impairment that has or may result from past, current or future Company operation.

The Company agrees, however, to pay the following liquidated damages for failure to comply with the conditions of this Final Order:

1. For those days beyond the date of entry of this Order, until May 31, 1981, any discharges from Outfalls 002, 003, 005, or 006 that are in violation of the final effluent limitations for the respective outfalls specified herein, $2,000 per day. Any pH excursions of 15 minutes or less duration shall not be subject to this $2,000 per day payment provision. All excursions, however, are subject to appropriate enforcement action.

2. On June 30, 1981 the Company shall notify the Department of Natural Resources in writing for each day since the date of entry of this Order for which the $2,000 is payable under this subsection of this Order, and the Company shall contemporaneously pay such amounts (if any) then accrued to the State.

3. A violation of the final effluent limitations for Outfalls 002, 003, 005, or 006 after the date of entry of this Order is a violation of this Final Order. The State may seek other and further relief for noncompliance conducted after any final compliance date specified in this Order.

Pennwalt Corporation is hereby put on Notice by this Commission that any material failure to comply with this Final Order may result in prompt enforcement action. A violation of any date in any of the schedules of compliance specified herein is a violation of the Total Order.

Nothing in this Order is intended to or shall deprive Pennwalt Corporation of its right or privilege to petition the Water Resources Commission or such other authority as may be appropriate for review of any matters relating to this Final Order.

This Final Order is entered on February 12, 1981 by direction of the Michigan Water Resources Commission of the Department of Natural Resources and shall expire July 1, 1983. The authorizations to discharge pursuant to Section A of this Final Order shall expire upon final action by the Water Resources Commission on Pennwalt Corporation's application dated November 30, 1979 for reissuance of NPDES Permit No. MI 0002381. The Commission and the Department retain jurisdiction to modify this Order or enter such further Orders as the fact and circumstances may warrant.

PENNWALT CORPORATION

BY: Robert S. Custer

Robert S. Custer
Vice President - Chemicals

Dated: 2-11-81

WATER RESOURCES COMMISSION

BY: Robert J. Coychaine
Robert J. Coychaine
Executive Secretary

Dated: 2-24-81

Approved as to Substance:

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Howard A. Tanner, Director

BY: Howard A. Tanner
Office of the Director

Dated: February 26, 1981

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Environmental Enforcement Division

BY: Jack D. Davis, Chief

Dated: 2-24-81

Approved as to Form:

Frank J. Kelley
Attorney General

BY: Assistant Attorney General

Dated: February 26, 1981

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL

VE Observations - Pennwalt, East Plant, 4655 Biddle Avenue, Wyandotte, MI (no request number)

Robert M. Buckley
THRU: A.R. Winklhofer, Director, EDO

Engineering Section, 5EAE
ATTN: Stephanie Valentine

The subject facility was observed during the EDO intensive air survey ("hot spot") in Wayne County, Michigan, June 1-2, 1981, conducted at the request of Air Enforcement (Dave Ullrich's memo of May 5, 1981).

Notification of this activity was provided per 114(d)(1) CAA as amended by Willie H. Harris, EDO during a meeting with Wayne County Air Pollution Control Division staff on May 14, 1981.

As shown on the attached report excessive visible emissions were not observed and the facility was not entered.

Attachment

RMB/cak

CONCURRENCES								
SYMBOL	EDO							
SURNAME								
DATE	7/28/81							

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

VISIBLE EMISSIONS REPORT

Source Identification

Facility: PENNWALT - EAST PLANT Wyandotte MI

Source:

Regulation: Wayne County Article VI, Section 6.1

Evaluator's Report

During the stated periods of observation, the following sources appeared as shown:

Process or Source	VARIOUS			
Date	6/1/81			
Obs. Time Start-End EDT	0950-1002			
Estimated Range of Opacity	"0" exc. "steam"			
Operating?	Yes, most			
Control Device(s)	ND			
Emission Point	stacks & vents			
Remarks	Facility has many stacks & vents			

Facility also observed on other occasions on 6/1 & 2/81 with no VEs noticed except "steam" which dissipated rapidly.

Name and qualification of expert witness to attest to above:

Signature: Robert M. Buckley

Name: Robert M. Buckley

Title: Chief, MI FIS

Office: Eastern District 5 SED

Date of Last Certification: April 24, 1981